No.



200300300

# THE UNITED SHATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Lebanon Seaboard Corporation & Rutgers, The State Unibersity of New Jersep

There has been presented to the

# Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDIGATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY FARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE MIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE OVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT ED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BENTGRASS, CREEPING

'Independence'

In Jestiman Macrest, I have hereunto set my hand and caused the seal of the Mant Bariety Arotection Office to be affixed at the City of Washington, D.C. this twenty-sixth day of July, in the year two thousand and five.

Allest: BC mZ

Commissioner Plant Variety Protection Office Agricultural Marketing Service Secretary of Agriculture

### INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

> **Plant Variety Protection Office** Telephone: (301) 504-5518 FAX: (301) 504-5291 Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:

(1) the geneal gy, including public and commercial varieties, lines, or clones used, and the breeding method;

(2) the details of subsequent stages of selection and multiplication;

(3) evidence of uniformity and stability; and

- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety 'including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- leed was sold and dispersed for testing September 15, 2002 in U.S. and Europe. regon Experimental Certified Seed was harvested in 2002, shipped and Sold Sept. 15.
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's epresentative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and regetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The raid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing astructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information

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o file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and DD). USDA is an equal opportunity provider and employer.

17-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

July29,2003

# Amended Origin and Breeding History of Independence (DAS) Creeping Bentgrass

Independence (DAS) creeping bentgrass (*Agrostis palustris* Huds.) is a medium-fine-leaved, medium-dark green creeping bentgrass selected from the maternal progenies of 14 clones. Independence was selected for intermediate density, medium maturity and intermediate growth habit which is defined as in between a very low growing putting green type and a more aggressive, lateral spreading fairway type growth habit.

The parental germplasm of Independence creeping bentgrass traces its origin to plants selected from old golf courses in the Northeastern United States in a germplasm collection program initiated in 1996. Both putting green and fairway genotypes were collected from old golf courses established at least eighty years prior to collection during the growing season of 1996. Attractive clones were selected from Harker's Hollow Golf Course in NJ, Old Westbury Country Club in Long Island NY, Suburban Golf Course in NJ, Canoe Brook Country Club in NJ, Shakamaxon Country Club in NJ, Piping Rock Golf Course in NY and Lake Success Golf Course in NY. The creeping bentgrass plants selected from old golf courses were of unknown origin, however it is likely that they originated from South German mixed bentgrass seed sources because this was one of the only sources for bentgrass seed in the early 1900's. South German mixed bentgrass seed consisted of approximately 50-85% colonial bentgrass (Agrostis capillaris L.), 15-30% velvet bentgrass (Agrostis canina L.) and less than 10% creeping bentgrass (1). All creeping bentgrass genotypes were large weed-free patches of turf surviving in stressful environments indicating that they had persisted and developed over a period of many years. Approximately 7% of the parental germplasm traces to plants selected from or related to L93 creeping bentgrass (1).

A spaced-plant nursery was established in the fall of 1996. The plants in the nursery consisted of 180 fairway collections and 120 putting green collections. The fairway collections consisted of: twenty-four from Suburban Golf Course, twelve from Harker's Hollow golf course, thirty-six from Canoe Brook, forty-eight from Echo Lake country club and less than ten each from Upper Montclair CC, National Golf Links GC, Lake Success GC, Old Westbury CC, Rumson CC and Baltostrol CC. The putting green collections consisted of twelve collections from Baltostrol CC, nine from Harker's Hollow GC, and approximately six each from Rumson CC, Shakamaxon CC, Old Westbury CC, Suburban GC, Lake Success GC, National Golf Links GC, Echo Lake CC and Shinecock CC.

In the spring of 1997, plants were selected from this nursery based on medium-maturity, freedom from disease, bright dark green color, medium shoot density, prostrate aggressive growth habit and seed yield potential. These plants were moved to a few isolated crossing blocks at Adelphia which were designated GPC and LPC.

Progeny from these crossing blocks were seeded in turf evaluation trials at the plant science research station at North Brunswick, NJ in 1997, and 1998. These plots were evaluated for disease resistance such as dollar spot (Sclerotinia homoeocarpa F.T. Bennet) and brown patch (Rhizoctonia solani Kuhn.) and tolerance of putting green mowing height. The best performing turf plots from these two trials were identified. Twelve plots were selected from the 1997 putting green trial from approximately 100 plots and 4 were selected from the 1998 putting green trial from approximately 150 plots.

The parental clones from those turf plots were used to establish a clonal spacedplant nursery in the fall of 1999, consisting of 240 plants. Thirty-one clones from this nursery were moved to an isolated polycross crossing block in the spring of 2000 at Adelphia, NJ from 18 different maternal clones. Plants were selected for medium maturity, freedom from diseases, bright dark green color, medium shoot density, and prostrate growth habit. Fourteen plants were harvested with good floret fertility and high seed yield from 11 different mother lines. This germplasm was not used in the development of any other variety. Breeder seed from this crossing block was planted in an Experimental Foundation field near Albany, Oregon in the fall of 2000. The first Foundation seed was harvested in the fall of 2001, with the first certified seed being harvested in the fall of 2002.

Independence has remained stable and uniform in both turf plots and as mature plants from Breeder seed, Foundation Seed and Certified seed. Additionally, the Oregon Seed Certification Service has allowed Certified to Certified plantings and they have remained uniform and stable. Thus Independence has remained stable and uniform through four generations. Seed from the third generation from Breeder seed (a certified production field) was used to enter Independence into the 2003 NTEP test. Through four years and four generations the turf performance has remained stable and uniform.

It has been my observation as the breeder and field production manager that

Independence is a very stable and uniform variety with no aberrant plants, no variants,
and no off-types observed in either turf, nurseries, or seed production fields. No variants
have been observed.

### REFERENCES

1. Hillman, F.H. 1921. South German mixed bent seed described. Bulletin of the Green Section of the USGA. Vol. 1(3):37-39.

# Diagram of Origin and Breeding History of Independence Creeping Bentgrass

### 1. 1996 to 1998

Germplasm collection, evaluation, and genetic improvement.

### 2. 1997 and 1998

Planted single-plant progenies of plants selected from current cycles of population improvement programs in closely moved turf trials at North Brunswick, NJ.

## 3. 1999

Selected 240 plants from the best performing single-plant progeny turf plots planted in 1997 and 1998. Established selected plants in a spaced-plant nursery at Adelphia, NJ.

### 4. 2000

Moved 31 plants to an isolated crossing block. Harvested from 14 plants with excellent appearance and floret fertility.

Each plant of Independence (DAS) tall fescue traces at least seven percent of its ancestral germplasm to plants selected from or related to L93 creeping bentgrass. The other 93 percent of its ancestral germplasm traces to plants selected from old golf course turfs of the Northeastern United States in a germplasm collection program initiated in 1996 and has undergone at least 3 cycles of phenotypic and genotypic recurrent selection for improved turf characteristics.

# BREEDING HISTORY OF INDEPENDENCE CREEPING BENTGRASS

ENTRY	ENTRY ID	PLANT # AT ANTHESIS   PLANTS HARVESTED	PLANTS HARVESTED
1	H97G-81, GPC-26,9290, C-2 - HARKERS HOLLOW GOLF COURSE, NJ		
2	H97G-48, LPC-5, 9215, PG-C-2 - OLD WESTBURY COUNTRY CLUB, NY		
သ	H97G-49, LPC-6, 9209, C-3 - SUBURBAN COLF COURSE, NJ		<b>,</b>
4	H97G-50, LPC-7, 9297, C-1 - CANOE BROOK COUNTRY CLUB, NJ	2	- 0
ဌ	H97G-51, LPC-8, 9206, C-5 - SHAKAMAXON COUNTRY CLUB, NJ	7	7
9	H97G-53, LPC-10, 9297, C-4 - CANOE BROOK COUNTRY CLUB, NJ	l m	2
7	H97G-57, LPC-15, 9288, C-2 - SHAKAMAXON COUNTRY CLUB, NJ		
8	H97G-59, LPC-17, 9299, C-2 - OLD WESTBURY COUNTRY CLUB, NY	2	2
6	H97G-61, LPC-2 - HARKERS HOLLOW GOLF COURSE, NJ	ı m	1
10	H97G-71, GPC-6, 9209 C-4 - SUBURBAN GOLF COURSE, NJ	2	Q
11	H97G-73, GPC-9, 9205, C-4 - SHAKAMAXON COUNTY CLUB, NJ	2	
12	H97G-75, GPC-13, 9291, C-1 - HARKERS HOLLOW GOLF COURSE, NJ		0
13	H98G-292 - HARKERS HOLLOW GOLF COURSE, NJ		0
14	H98G-296 - HARKERS HOLLOW GOLF COURSE, NJ	2	2
15	H98G-299 - SHAKAMAXON COUNTRY CLUB, NJ	2	
16	H98G-302 - LAKE SUCCESS COUNTRY CLUB, NY	2	
17	MCB-8, 7409, C-1 - PIPING ROCK GOLF COURSE, NY	2	
18	MCB-12 - PLANT SELECTED FROM L-93		
	TOTAL	31	14

# STATEMENT OF DISTINCTNESS

Independence creeping bentgrass is most similar to L-93 creeping bentgrass. Both varieties are similar in turf plots and as mature plants. Both varieties were developed using germplasm from Rutgers University and the New Jersey Agricultural Experiment Station.

Independence has a significantly later heading date than L-93, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data). Independence is significantly shorter than L-93 as measured by unstraightened plant height, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data). Independence has a significantly shorter subtending leaf length than L-93, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data). Independence also has a significantly shorter subtending leaf ligule length than L-93, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data). Independence also has a significantly shorter flag leaf ligule length than L-93, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data). Independence also has a significantly shorter flag leaf length than L-93, both in 2002 and 2003 in a trial near Hubbard, Oregon (see the following data).

Whorls/ Panicle (#) 7.4 7.1 7.9 0.5 2003 mean morphological measurements for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR. Flag Leaf Width (mm) 2.2.4 2.9.4 2.9 0.2 Flag Leaf Length (cm) 3.8 6.0 4.6 0.5 Flag Leaf Ligule Length (mm) 2.6 2.6 1.8 0.3 Subtending Leaf Ligule Length (mm) 1.9 2.6 2.3 0.3 Subtending Leaf Length (cm) 5.6 8.1 6.8 9.0 Internode Length (cm) 9.4 10.4 8.4 9.0 Panicle Length (cm) 26.8 24.4 23.7 2.4 Panicle Tip to Bottom Branch (CIII) 8.5 8.5 2.5 2.5 9.0 Unstraightened Plant Height (cm) 41.5 55.4 51.7 3.1 Plant Height (cm) 59.8 58.2 56.6 7.4 Independence PennLinks L-93 LSD (0.05) Entry

# ADDENDUM TO EXHIBIT B STATEMENT OF DISTINCTNESS FOR PVP APPLICATION FOR INDEPENDENCE CREEPING BENTGRASS

### INDEPENDENCE VS PENNCROSS

The average plant height for Penncross over a four-year period is 38.35cm. The two-year average plant height for Independence is 56.55cm, with an LSD (0.05) averaged over two years of 5.1cm. Independence is over 18 cm or 47 % taller.

Penncross has a darker green color and a finer leaf texture (dark green vs. green and fine vs. medium fine) and a heavier seed weight (.088 vs. .0769 grams).

# INDEPENDENCE VS PRINCEVILLE

The average plant height for Princeville over a one-year period is 29.9 cm. The two-year average plant height for Independence is 56.55cm (range 53.3-59.8), with an LSD (0.05) averaged over two years of 5.1cm. Independence is over 26 cm or 89 % taller.

# INDEPENDENCE VS PROCUP

The average flag leaf length for ProCup is 9.0 cm. The average flag leaf length for Independence is 4.0 cm, with an LSD (0.05) of 0.5 cm. ProCup's flag leaf is 5 cm or 125% longer than Independence.

ProCup is listed as having Dark Green and Very Dark Green color, while Independence has a green color.

The data also lists the plant height as taller than PennLinks for ProCup and shorter that PennLinks for Independence.

### INDEPENDENCE VS PROMINENT

The data lists Prominent as being shorter than Penncross, while as discussed above Independence is much taller than Penncross. It also lists a decumbent growth form, while Independence is erect. It lists a light green color and fine leaf texture for Prominent vs. a green color and medium fine leaf texture for Independence.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PROGRAM PLANT VARIETY PROTECTION OFFICE **BELTSVILLE, MD 20705**

**EXHIBIT C** (BENTGRASS)

# **OBJECTIVE DESCRIPTION OF VARIETY BENTGRASS**

	•	(Agrostis spp.)	
NAME OF API	PLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Lebanon S	seaboard Corporation &Rutger	s Univ. DAS &	Independence
ADDRESS (Str	eet and No., or R.F.D. No., City, State, and ZIP Co	ode)	FOR OFFICIAL USE ONLY
P.O. Box	10		1PVPO NUMBER 2003 0 0 3 0 0
Huntsvill	e, UT 84317-0010		and the that the the the the
(e.g. 089). Desc be for SPACED	oriate number that describes the varietal characteric riptions of characters should represent those that a PLANTS. Give additional description for all charactive trial and evaluation data. The symbol " it is in the symbol in t	re <u>typical</u> for the variety. Ranges may b acteristics that cannot be adequately des	e given also. Measured data should
	COMPARISON V	ARIETIES FOR USE BELOW	
1 = Astoria 5 = Penncross	2 = Exeter 6 = Kingstown	9 = L $3 = $ Highland $4 = $ So $7 = $ Astra $8 = $ O	
1. SPECI	ES		
2		= Creeping A. stolonifera (A. palustris) = Brown Bent A. canina ssp. montana	
2. ADAP	FATION (0 = Not Tested, $1 = Not Adapted$ , $2 = A$	Adapted)	
2	Northeast 2 Southeast	2 North Central 2 Pacit	fic N. W.
2	Other (Please Specify): United Kingdo	om, France and The Netl	nerlands
3. MATU	RITY (At first anthesis): Use comparison varieties	S	
0 4	Days earlier than	COMPARISON VARIETY	
	Maturity the same as	8 COMPARISON VARIETY	
	Days later than	COMPARISON VARIETY	
4. HEIGH	T (Average of longest 10 shoots from soil surface	e to top of head)	and the second s
5 3	cm Height (at maturity) 0 8 cm	Shorter than 8 COM	IPARISON VARIETY
	He	eight the same as COM	IPARISON VARIETY
	cm	Taller than COM	PARISON VARIETY
		i e	4.4

5.	GROWTH HAI	BIT	<b>c</b>		00300300
	% Pros	erect or ascending f			rect
6.	VEGETATIVE	REPRODUCTION			
	Rhizomes:	1 = Absent 2	2 = Present		
	Stolons:	l= Absent 2	2 = Present		
	% Rhiz	zomes 1 0 0 % Stolons	3		
7.	LEAF BLADE			··	***************************************
	Color:	1 = Yellowish Green (Cohar 3 = Green (Exeter) 5 = Bluish Green (Highland)		2 = Light Green (Washington) 4 = Dark Green (Kingstown, To 6 = Other (Please Specify):	racenta)
	Texture: (fineness)	1 = Very Fine (Kingstown) 3 = Medium Fine (Astoria) 5 = Medium Coarse (Virgina	a)	2 = Fine (Exeter) 4 = Medium (Seaside) 6 = Coarse (Vermont)	
	Stomat	tal density of upper leaf surface			
	Lower Surface:	100 % Smooth		% Rough	
ωO \	Upper Surface:	% Smooth	100	% Rough	
BUN 10H	Margins:	% Smooth	100	% Rough	
13/2	a o mm Wi	idth (Average of 10)	nm Narrower tha	an CO	MPARISON VARIETY
	Compa	<u>ن.</u> ه			MPARISON VARIETY MPARISON VARIETY
	4 2 mm Wi	idth (Flag Leaves) 4 c	m Length (Flag	Leaves)	
8.	LEAF SHEATH	[			
	Anthocyanin:	1 = Absent 2 = Present	0 % Red S	Sheaths	
9.	LIGULE (lower	and middle leaves)		1 . 1	mounded
	Shape at Apex:	% Acute 100		ght be considered ded %T	runcate
		Mother (Please Specify)	):		
	Pubescence:	1 0 0 % Glabrous	% Pubes	scent	
	Margins:	1 0 0 % Entire	7 % Tooth	ned	
		% Other (Please Specify)	):		
	2 3 mm Len	ngth			
10.	LEMMA				
lsysrylod fixolod	Shape:	% Obovate	% Ovate		
					Ġ

10.	' LEMMA (Cont	inued) 				ന കക	∞ A /	a 92 a	0
4		% Oblong		% Other (Pleas	e Specify): _	ZUU	3 U	030	<b>C</b>
	0 4 mm W	idth 1 4	mm Length (Ex	clusive of awn)					:
	Color:	1 0 0 % Buff		% Silvery	·				· .
		% Other (Plea	se Specify):		***************************************				
	Surface:	1 0 0 % Glossy		% Dull					·
	Texture:	1 0 0 % Smooth		% Punctate				٠	
	Pubescence:	1 0 0 % Glabrous		% Sparse					
		Copious %							
	Basal Hairs:	1 0 0 % Absent		% Few					
-		Many		% Short				÷	
		Cong		% Appressed	•				
		Mascending		% Spreading					
٠.	Awns:	1 0 0 % Absent		% Few					
		Many		% Awn-pointed	I	-			
		Short		% Long		•			
		% Straight		% Geniculate					
	Awn Insertion	Basal		% Middle					
•	on Lemma:	% Distal				-			
11.	PANICLE								
	Туре	5 0 % Open		% Compact				•	
	(in anthesis):		, LJL5#QJ		eneral (	obser	vatio	ns in	seed pr
	Anthocyanin:	25 % Absent	75	% Present					•
	Branches in Anthesis:	% Appressed	100	% Ascending		* #			
	Tildiosis,	% Spreading							
	Branches in Fruit:	% Appressed	100	% Ascending t	o sligh	tly s	pread	ing&	Clustere
	Fluit.	% Spreading							
	Branch Surface:	100 % Smooth		% Scabrous			•		
10	SEED		·				·		,
12.		1000 : 07/0		0.00					
	■✓I✓I ′ Grams p	er 1000 seed .0769 gr	ams per 1	,000 seed	s				
13.	SPRING GREEN	UP							
	$\boxed{2}$ 1 = Early	y (Exeter) 2 = Mediu	m (Astoria)	3 = Late (Kingst	own)	* 4			

14.	ENVIRONM	IENTAL RESISTANCE	(0 = Not Te	SCA\		4=VESIStant Resistant)	RAD 12/24/0
	3 2 Col	١٣٠٠		0 Shade	_	ther (Please Specify):	00300
15.	DISEASE R	ESISTANCE	(0 = Not Te	sted, 1 = Susce	le 1-4; 2 ptible, 2 = R	H= resistant Resistant)	12/24/04
	0 Red	Leaf Spot (Drechslera et	rythrospila)		3 🗷 н	elminthosporium Leaf Spot	(Bipolaris sorokiniana)
	4 ≥ Mel	ting Out (Drechslera poac	e (Helminthosporiu	m vagans))	2 D	ollar Spot ( <i>Sclerotinia homo</i>	ecarpa)
	0 Pytl	nium Blight (P. aphanide	rmatum)		0 Py	thium Blight (P. ultimum)	
	0 Fus	arium Blight (F. roseum)			0 Fu	ısarium Blight (F. tricinctun	<i>i</i> )
	0 Fus	arium Patch (Pink Snow I	Mold) (F. nivale)		0 Pc	owdery Mildew (Erysiphe gr	caminis)
4	O Oph	niobolus Patch (O. gramni	is)		0 St	ripe Smut (Ustilago striiforn	nis)
	3 🛮 Cop	per Spot ( <i>Gloeocercospo</i>	ra sorghî)		In Ty	yphula Blight (Snow Scald)	(T. incarnata)
	0 Red	Thread (Corticium fucifo	rme)		0 Br	rown Patch (Rhizoctonia solo	ani)
	32 Sten	n Rust ( <i>Puccinia gramini</i> .	s)		0 Cr	rown Rust (P. coronata)	
	3 🛮 Lead	f Rust (P. poae-nemoralis	)		O	ther (Please Specify):	
16.	INSECT RES	SISTANCE	(0 = Not Tes	sted, 1 = Susce	ptible, 2 = R	tesistant)	
	Euro	opean Chafer (Amphimall	on solstitialis)		0 G	arden Chafer ( <i>Phyllopertha</i> i	horticola)
	O Chir	nch Bug ( <i>Blissus insularis</i>	·)		0 w	ebworm (Crambus spp.)	
	O Arm	yworm (Cutworm) (Pseu	doletia unipuncta)		Ot	ther (Please Specify):	
17.	indicate the d	(-)	R.) with one of the	following num		ARIETY: For the following bmitted variety is less than,	
	Character	Similar Variety	D.R.		haracter	Similar Variety	D.R.
	h Habit	L-93	2	Leaf Co		L-93	2
Awn L		L-93	2	Panicle			
NACH I	Maraht	7 00		I From Co		1 7 02	1 ^

Character	Similar Variety	D.R.	Character	Similar Variety	D.R.
Growth Habit	L-93	2	Leaf Color	L-93	2
Awn Length	L-93	2	Panicle Type		
Seed Weight	L-93	2	Turf Fineness	L-93	2
Cold Resistance	L-93	2	Heat Resistance	L-93	2
Drought Resistance	L-93	2	Shade Resistance		
Brown Patch	N/A				

18. COMMENTS Mean initial heading dates for entries in a creeping bentgrass seed yield trial seeded fall of 2001 near Hubbard, OR.

Entry	2002	2003
	00.1	40.1
Independence	08 June	10 June
PennLinks	07 June	07 June
L-93	04 June	04 June
LSD (0.05)	4 days	4 days

AGRICULTURAL MARKETING SERVICE	The following statements are made	FORM APPROVED - OMB NO. 0581 is in accordance with the Privacy.
	<b>2</b>	17(A) of 400
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	1 Application is provided in automate	
1 MANUE OF ACCUSED OF THE BASIS OF OWNERSHIP	until certificate is issued (7 U.S.C.	o determine if a plant variety prot - 24211. Information is held confit 2426).
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
Lebanon Seaboard Corporation & LAN 6	OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Rutgers, The State University of New Jersey	LTP-CBG-1 &	[
	DAS	Independence
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	C CIV-
.O. Box 10		6. FAX finclude area codel
intsville, UT 84317	5035807333	8017454610
	7. PVPO NUMBER 2003 0	AZAA
Does the applicant own all rights to the variety? Mark an "X" in appropriate	ZVVJ V	VOVV
to the valiety! Mark an 'X' in appropriate	block. If no, please explain.	X YES NO
		X YES NO
	<u> </u>	<u></u>
	•	
·		<del></del>
Is the applicant (individual or company) a U.S. national or U.S. hand		
Is the applicant (individual or company) a U.S. national or U.S. based companils no, give name of country	y)?	X YES NO
Is the applicant the accept		X YES NO
Is the applicant the accept	y?  Iswer the following:	X YES NO
Is the applicant the original owner? X YES NO If no, please at	swer the following:	
Is the applicant the original owner? X YES NO If no, please at	swer the following:	
Is the applicant the original owner? X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)	swer the following:	
Is the applicant the original owner?   X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country	iswer the following: the original owner(s) a U.S. national	(s)?
Is the applicant the original owner? X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country	iswer the following: the original owner(s) a U.S. national	(s)?
Is the applicant the original owner? X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the original rights to variety were owned by a company, is the original rights.	iswer the following: the original owner(s) a U.S. national	(s)?
Is the applicant the original owner?   X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the original rights to variety were owned by a company, is the original rights to variety were owned by a company.	the original owner(s) a U.S. national ginal owner(s) a U.S. based compar	(s)?
Is the applicant the original owner?   X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the original rights to variety were owned by a company, is the original rights to variety were owned by a company.	the original owner(s) a U.S. national ginal owner(s) a U.S. based compar	(s)?
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a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the original rights to variety were owned by a company, is the original rights to variety were owned by a company.  Additional explanation on ownership (If needed, use reverse for extra space):	the original owner(s) a U.S. national ginal owner(s) a U.S. based compar	(s)?
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a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the ori  YES NO If no, give name of country  Additional explanation on ownership (If needed, use reverse for extra space):  ASE NOTE:	the original owner(s) a U.S. national ginal owner(s) a U.S. based compared to the following criteria:	(s)? y?
a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the ori  YES NO If no, give name of country  Additional explanation on ownership (If needed, use reverse for extra space):  ASE NOTE:  variety protection can be afforded only to owners (not licensees) who meet of the rights to the variety are curred by a company.	the original owner(s) a U.S. national ginal owner(s) a U.S. based compared to the following criteria:	(s)? y?
Is the applicant the original owner? X YES NO If no, please at a. If original rights to variety were owned by individual(s), is (are)  YES NO If no, give name of country  b. If original rights to variety were owned by a company, is the original rights to variety were owned by a company, is the original rights.	the original owner(s) a U.S. national ginal owner(s) a U.S. based compared on the following criteria:  De a U.S. national, national of a UP ne genus and species.	(s)?  OV member country, or national

- 3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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